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NOTICE OF ALLOWANCE AND FEE(S) DUE

26119 7590 10/19/2009 KLARQUIST SPARKMAN LLP 121 S.W. SALMON STREET SUITE 1600

PORTLAND OR 97204

EXAMINER
AN, SHAWN S
ART UNIT PAPER NUMBER
2601

DATE MAILED: 10/19/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
09/955,731	09/19/2001	Jordi Ribas-Corbera	3382-68270-01	9471		
TITLE OF INVENTION: GENERALIZED REFERENCE DECODER FOR IMAGE OR VIDEO PROCESSING						

APPLN, TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	01/19/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT AGRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

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PORTLAND, O	R 97204						(Depositor's name)
							(Signature)
							(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR		ATTOR	NEY DOCKET NO.	CONFIRMATION NO.
09/955,731	09/19/2001		Jordi Ribas-Corbera		33	82-68270-01	9471
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APPLN, TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE	FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0		\$1810	01/19/2010
EXAM	INER	ART UNIT	CLASS-SUBCLASS				
AN, SH.	AWN S	2621	375-240250				
1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). Change of correspondence address for Change of Correspondence Address form PTO/SB/122) attached. The Address form PTO/SB/122 attached. The Address' indication (or "Fee Address" Indication form PTO/SB/147; Rev 0.302 or more creen) attached. Use of a Customer Number is required. Namber is PAME AND RESIDENCE DATA TO BE PRINTED ON			or agents OR, alternative (2) the name of a single registered attorney or a 2 registered patent attorney on a listed, no name will be	nes of up to 3 registered patent attorneys R, alternatively, e of a single firm (having as a member a totroney or agen) and the names of up to patent attorneys or agents. If no name is me will be printed.			
PLEASE NOTE: Uni recordation as set forti (A) NAME OF ASSIG	ess an assignee is ident h in 37 CFR 3.11. Comj GNEE	ified below, no assignee pletion of this form is NO		ntent. If an assigned assignment. and STATE OR CO	DUNTE	RY)	ocument has been filed for
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	s SMALL ENTITY state	is. See 37 CFR 1.27.	☐ b. Applicant is no long				
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09/955,731	09/19/2001	Jordi Ribas-Corbera	3382-68270-01	9471	
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KLARQUIST SPARKMAN LLP			AN, SHAWN S		
121 S.W. SALMON STREET			ART UNIT	PAPER NUMBER	
SUITE 1600 PORTLAND, OR 9	07204		2621		

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 581 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 581 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

Application No.	Applicant(s)	
09/955,731	RIBAS-CORBERA ET	AL.
Examiner	Art Unit	
SHAWN AN	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address-All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- This communication is responsive to 6/3/09.
- The allowed claim(s) is/are 67-69 and 71-132.
- Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some* c) None of the:
 - 1.

 Certified copies of the priority documents have been received.
 - Certified copies of the priority documents have been received in Application No.
 - Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) 🔲 including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ______.

 Identifying indicts such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

 DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1. Notice of References Cited (PTO-892)
- 2. Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3. Information Disclosure Statements (PTO/SB/08),
- Paper No./Mail Date 9/16/09
 4. ☐ Examiner's Comment Regarding Requirement for Deposit
- Examiner's Comment Regarding Requirement for Deposi of Biological Material
- 5. Notice of Informal Patent Application
- Interview Summary (PTO-413), Paper No./Mail Date ______.
- 7. X Examiner's Amendment/Comment
- 8. X Examiner's Statement of Reasons for Allowance
- 9. Other ____

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Application/Control Number: 09/955,731

Art Unit: 2621

EXAMINER'S AMENDMENT

I. An Examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to Applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

IN THE CLAIMS:

- A) Please amend claims 67, 92, 108, 117, 121, 128, and 132 as follows:
- 67. (currently amended) A computer-implemented method of decoding video with a video decoder, the method comprising:

at the video decoder, receiving a given bit stream of encoded data for a given video clip:

at the video decoder, receiving multiple sets of reference decoder parameters signaled for the given bit stream of encoded data for the given video clip, wherein each of the multiple sets comprises a rate parameter and a decoder buffer size parameter for a reference decoder model that specifies constraints on fluctuations of the given bit stream of encoded data for the given video clip, and wherein each of the multiple sets indicates a different and alternative combination of rate parameter and decoder buffer size parameter for the same video images in the given bit stream of encoded data for the given video clip;

with the video decoder, determining an operating condition using any of the multiple sets, wherein the operating condition indicates peak rate or decoder buffer size for decoding the encoded data for the given video clip, and wherein the multiple sets are concurrently available for use in the determining the operating condition; and

with the video decoder, decoding the encoded data for the given video clip in accordance with the operating condition.

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92. (currently amended) A computer-implemented method of decoding video with a video decoder, the method comprising:

at the video decoder, receiving multiple sets of reference decoder parameters signaled for a given bit stream of encoded data for a given video clip, wherein each of the multiple sets comprises a rate parameter and a decoder buffer size parameter for a reference decoder model that specifies constraints on fluctuations of the given bit stream of encoded data for the given video clip, and wherein each of the multiple sets indicates a different and alternative combination of rate parameter and decoder buffer size parameter for the same video images in the given bit stream of encoded data for the given video clip;

with the video decoder, processing the multiple sets, wherein the multiple sets are concurrently available for use in determination of an operating condition, and wherein the operating condition indicates peak rate or decoder buffer size for decoding the encoded data for the given video clip; and

with the video decoder, decoding the encoded data for the given video clip.

108. (currently amended) A computer-implemented method of decoding video with a video decoder, the method comprising:

at the video decoder, receiving a number parameter that indicates how many sets of reference decoder parameters are signaled for a given bit stream of encoded data for a given video clip;

at the video decoder, receiving multiple sets of reference decoder parameters signaled for the given bit stream of encoded data for the given video clip, wherein each of the multiple sets comprises a rote parameter and a decoder buffer size parameter for a reference decoder model that specifies constraints on fluctuations of the given bit stream of encoded data for the given video clip, and wherein each of the multiple sets represents a different and alternative point along a rate-decoder buffer size curve for the same video images in the given bit stream of encoded data for the given video clip;

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with the video decoder, processing the multiple sets, wherein the multiple sets are concurrently available for use in determination of an operating condition, and wherein the operating condition indicates peak rate or decoder buffer size for decoding the encoded data for the given video clip; and

with the video decoder, decoding the encoded data for the given video clip.

117. (currently amended) A computer-implemented method of decoding video with a video decoder, the method comprising:

at the video decoder, receiving multiple sets of reference decoder parameters signaled for a given bit stream of encoded data for a given video clip, wherein each of the multiple sets comprises a rate parameter and a decoder buffer size parameter for a reference decoder model that specifics constraints on fluctuations of the given bit stream of encoded data for the given video clip, and wherein each of the multiple sets indicates a different and alternative combination of rate parameter and decoder buffer size parameter for the same video images in the given bit stream of encoded data for the given video clip;

with the video decoder, processing the multiple sets, wherein the multiple sets arc concurrently available for use in determination of an operating condition, and wherein the operating condition indicates peak rate or decoder buffer size for decoding the encoded data for the given video clip;

at the video decoder, receiving multiple additional sets of reference decoder parameters signaled for the given bit stream of encoded data for the given video clip;

with the video decoder, processing the multiple additional sets, wherein the multiple additional sets are concurrently available for use in re-determination of the operating condition, and wherein each of the multiple sets and multiple additional sets represents a different leaky bucket model for the given video clip; and

with the video decoder, decoding the encoded data for the given video clip.

121. (currently amended) A computer-implemented method of decoding video with a video decoder, the method comprising:

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at the video decoder, receiving a number parameter that indicates how many sets of reference decoder parameters are signaled :for a given bit stream of encoded data for a given video clip;

at the video decoder, receiving multiple sets of reference decoder parameters signaled for the given bit stream of encoded data for the given video clip, wherein each of the multiple sets comprises a rate parameter and a decoder buffer size parameter for a reference decoder model that specifies constraints on fluctuations of the given bit stream of encoded data for the given video clip;

with the video decoder, determining an operating condition using any of the multiple sets, wherein the operating condition indicates peak rate or decoder buffer size for decoding the encoded data for the given video clip, wherein the multiple sets are concurrently available for use in the determining the operating condition, and wherein each of the multiple sets represents a different and alternative point along a rate-decoder buffer size curve for the same video images in the given bit stream of encoded data for the given video clip; and

with the video decoder, decoding the encoded data for the given video clip in accordance with the operating condition.

128. (currently amended) A video decoder comprising:

a processor:

memory; and

non-volatile storage media; storing computer executable instructions for causing the video decoder to perform a method of decoding video, the method comprising:

wherein the processor, memory, and non-volatile storage media implement a video decoder adapted to:

at the video decoder, receiving receive multiple sets of reference decoder parameters signaled for a given bit stream of encoded data for a given video clip, wherein each of the multiple sets comprises a rate parameter and a decoder buffer size parameter for a reference decoder model that specifies constraints on fluctuations of the given bit stream of encoded data for the given video clip, and wherein each of the

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multiple sets indicates a different and alternative combination of rate parameter and decoder buffer size parameter for the same video images in the given bit stream of encoded data for the given video clip;

with the video decoder, processing process the multiple sets, wherein the multiple sets are concurrently available for use in determination of an operating condition, and wherein the operating condition indicates peak rate or decoder buffer size for decoding the encoded data for the given video clip; and

with the video decoder, decoding decode the encoded data for the given video clip.

132. (currently amended) A computing device comprising:

a processor;

memory:

an input device; and

non-volatile storage medium; storing computer-executable instructions for causing the computing device to perform a method of decoding video with a video decoder, the method comprising:

wherein the processor, memory, and non-volatile storage medium implement a video decoder adapted to:

at the video-decoder, receiving receive multiple sets of reference decoder parameters signaled for a given bit stream of encoded data for a given video clip, wherein each of the multiple sets comprises a rate parameter and a decoder buffer size parameter for a reference decoder model that specifies constraints on fluctuations of the given bit stream of encoded data for the given video clip, and wherein each of the multiple sets indicates a different and alternative combination of rate parameter and decoder buffer size parameter for the same video images in the given bit stream of encoded data for the given video clip;

with the video decoder, processing process the multiple sets, wherein the multiple sets are concurrently available for use in determination of an operating Art Unit: 2621

condition, and wherein the operating condition indicates peak rate or decoder buffer size for decoding the encoded data for the given video clip; and

with the video decoder, decoding decode the encoded data for the given video clip.

REMARKS:

- II. Claims 67, 92, 108, 117, 121, 128, and 132 have been amended as discussed above, as authorized by Applicant's attorney, Kyle B. Rinehart on September 16, 2009.
- III. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to *Shawn An* whose telephone number is 571-272-7324.

/SHAWN AN/ Primary Examiner, Art Unit 2621 9/17/09 Application/Control Number: 09/955,731 Page 8

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Reasons for Allowance

 As per Applicant's instructions as filed on 6/03/09, claims 67, 128, and 132 have been amended, and claims 1-66 and 70 have been canceled.

Furthermore, claims 67, 92, 108, 117, 121, 128, and 132 have been amended in the Examiner's Amendment as discussed above.

- 2. Claims 67-69 and 71-132 are allowed.
- 3. Independent claims 67, 92, 108, 117, 121, 128, and 132, and corresponding dependent claims are allowed as having incorporated allowable subject matter (claimed feature, wherein each of the multiple sets indicates a different and alternative combinations of rate parameter and decoder buffer size parameter for the same video images, and/or each of the multiple sets represents a different and alternative point along a rate-decoder buffer size curve for the same video images in the given bit stream of encoded data for the given video clip), wherein the prior art of record fails to anticipate or make obvious the allowable subject matter as specified in independent claims 67, 92, 108, 117, 121, 128, and 132.

Any comments considered necessary by Applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

- 4. The prior art made of record is considered pertinent to Applicant's disclosure.
 - A) Ozkan et al (5,933,451), Complexity determining apparatus.
 - B) Hurst Jr. (6,459,811 B1), Burst data transmission of compressed video data.
 - C) Morris (6,873,629), Apparatus/method for converting data streams.

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 D) Eyuboglu et al (5,541,852), System/device/method for variable bit rate packet video communications.

- Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Shawn An whose telephone number is 571-272-7324.
- The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
- 7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.